



Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A process of propagating viewing assets to a system of video servers, the process comprising:

copying a missing portion of a replica of a selected viewing asset to a target video server in response to determining that

a propagation priority to propagate representing a predicted economic value of propagating the selected asset to the target server is higher than

a retention value of representing a predicted economic value of retaining a replica of one or more viewing assets stored on the target server.
2. (Currently Amended) The process of claim 1, wherein ~~the copying writes~~ a missing portion comprises writing the missing portion of the replica of the selected asset onto a storage region of the target video server on which is already stored ~~previously storing a portion of~~ the replica of one or more viewing assets.
3. (Original) The process of claim 1, further comprising: selecting a portion of the replica of one or more viewing assets in response to the replica of one or more viewing assets having a data size at least as large as a data size of the missing portion of the selected asset.

4. (Currently Amended) The process of claim 1, wherein ~~the~~ copying the missing portion of the replica of a selected asset includes copying the missing portion from one or more video servers.
5. (Currently Amended) The process of claim 1, further comprising:

assigning ~~propagate~~ propagation priorities ~~of~~ to a plurality of viewing assets;

ranking the viewing assets according to the assigned priorities; and

selecting ~~the selected~~ an asset in response to the ~~selected~~ asset having ~~more~~ a rank higher than a preselected minimum rank.
6. (Currently Amended) The process of claim 5, wherein ~~the~~ assigning propagation priorities includes determining ~~the~~ propagation priorities based at least in part on global priorities to propagate associated ones of the assets to target video servers.
7. (Currently Amended) The process of claim 5, wherein ~~the~~ assigning propagation priorities includes determining local priorities indicative of economic values of having to ~~have~~ replicas of associated assets on particular video servers, the local priorities depending on the states of the particular video servers.
8. (Currently Amended) The process of claim 5, wherein the portion of a replica of one or more viewing assets consists of replicas of asset elements belonging to one or more ELists.
9. (Currently Amended) The process of claim 3, further comprising: updating retention values of replicas of viewing assets remaining on the target server in response to the copying of the missing portion of the replica of the selected viewing asset.

10. (Currently Amended) The process of claim 1, ~~wherein further comprising selecting the~~ viewing assets to include video files for at least one of movies, news emissions, and shopping emissions.
11. (Original) The process of claim 1, wherein the replica of one or more viewing assets includes a replica of an asset element shared by replicas of two assets on the target server.
12. (Currently Amended) A process for propagating digital viewing assets to video servers, the process comprising:

assigning, to each of a plurality of digital viewing assets, a propagation priority indicative of an economic value of to propagate ~~propagating~~ the asset onto video servers;

ranking the assets based on the assigned priorities; and

propagating, ~~one of the assets~~ to one or more selected video servers, ~~in response to the~~ ~~one of the those~~ assets having a preselected minimum ranking.
13. (Currently Amended) The process of claim 12, wherein ~~the~~ assigning a propagation priority includes:

assigning a viewing asset to a usage class, the usage class providing a portion of an initial value for propagation priorities to propagate ~~associated with~~ assets assigned to the class.
14. (Currently Amended) The process of claim 13, further comprising:

accumulating usage data on individual assets stored on the video servers; and

updating the propagation priorities to propagate ~~the assets~~ based on the usage data.

15. (Original) The process of claim 13, wherein the viewing assets include one of encoded digital video assets and encoded digital audio assets.
16. (Currently Amended) The process of claim 14, wherein the usage data includes data indicative of numbers of viewer requests during predetermined periods demand and data indicative of change in viewer demand~~ifferences between numbers of viewer requests during earlier and later predetermined periods.~~
17. (Currently Amended) The process of claim 14, further comprising: updating the propagation priority to propagate ~~of~~ a particular asset in the usage class based on a difference between the usage level of the usage class and a usage level of the particular asset determined from the accumulated usage data.
18. (Currently Amended) The process of claim 13, further comprising: calculating the propagation priority to propagate the one of the assets onto a particular video server from a global priority to propagate the one of the assets and a local priority to propagate a replica of the asset on the one of the selected video servers.
19. (Currently Amended) The process of claim 13, further comprising: streaming a replica of the copied one of the assets from the particular video server to a television of a viewer in response to receiving a request to view deliver the asset ~~from the viewer.~~
20. (Currently Amended) A process of propagating viewing assets to a video storage, the process comprising:

 assigning propagation priorities to viewing assets, the propagation priorities being predictive of an economic value associated with propagating an asset;

 constructing a table of element deletion lists for a target video storage;

selecting a group of element deletion lists from the table, the group having a data size at least as large as a data size of a portion of a replica of another asset not stored on the target storage; and

copying the portion of the replica of the another asset onto the target video storage in response to the propagation priority of the another asset being larger than a retention value of the group.

21. (Currently Amended) The process of claim 20, wherein ~~the copying writes~~ the portion of the replica comprises writing the portion onto a region of the target video storage previously storing the group.
22. (Currently Amended) The process of claim 20, wherein ~~the selecting a group includes~~ constructing a table [~~listing~~] that lists sets of element deletion lists with lower retention value than the propagation priority of the another asset.
23. (Currently Amended) The process of claim 22, wherein ~~the selecting a group includes~~ picking one of the lists having a data size at least as large as the portion of the replica of the another asset.
24. (Currently Amended) The process of claim 20, further comprising: updating the table of element deletion lists ~~in response to performing the~~ after copying the portion of the replica of the another asset.
25. (Original) The process of claim 20, wherein each element deletion list includes a set of replicas of asset elements that are shared by the same assets.
26. (Currently Amended) A process of distributing viewing assets to viewers, the process comprising:

assigning priorities to assets, the priorities ~~indicating priorities for~~ being predictive of an economic value associated with distributing the associated assets to video servers accessible to viewers;

selecting a video server; and

copying one of the assets onto the video server in response to determining that the priority associated with the one of the assets is greater than a retention value associated with a set replicas of viewing assets stored on the video server, the replicas occupying enough space to store the one of the assets, the retention value being predictive of an economic value of retaining the set of replicas.

27. (Currently Amended) The process of claim 26, wherein ~~the~~ copying one of the assets includes searching for one or more sets of replicas of asset elements to delete from a table of element deletion lists.
28. (Original) The process of claim 26, further comprising: updating the retention values in response to anticipated changes in viewer request levels for assets.
29. (Currently Amended) The process of claim 28, further comprising: accumulating data on usage of individual ones of the assets, and ~~the~~ updating the retention values based at least in part on the accumulated data.
30. (Currently Amended) An interactive television system, comprising:

a communication channel selected from the group consisting of one of a network and a bus;

a plurality of video servers to store digital replicas of viewing assets for viewers, the video servers being connected by the communication channel ~~one of a network and a bus;~~ and

a control unit connected to the video servers and configured to control copying of a missing portion of a replica of a selected asset to one of the video servers in response to an economic value ~~a priority to propagate~~ of propagating the selected asset onto the target server being higher than a an economic value of retaining a replica of one or more other assets already stored on the one of the servers.

31. (Original) The system of claim 30, wherein the control unit is further configured to record usage data for the assets stored on each of the local video storages.
32. (Currently Amended) The system of claim 30, further comprising: a plurality of distribution networks to provide channels for delivering viewing assets to viewer televisions, each distribution network connected to ~~portion~~ a subset of the video servers.
33. (Original) The system of claim 30, wherein the control unit is configured to accumulate usage data on viewing assets from the video servers.
34. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 1 ~~propagating viewing assets onto video storages, the instructions to cause the computer to:~~

~~order copying of a missing portion of a replica of a selected viewing asset to a target video server in response to determining that a priority to propagate the selected asset to the target server is higher than a retention value of a replica of one or more viewing assets stored on the target server.~~
35. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 3 ~~The media of claim 34, the instructions further causing the computer to:~~

~~select a portion of the replica of one or more viewing assets in response to the replica of one or more viewing assets having a data size at least as large as a data size of the missing portion of the selected asset.~~

36. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 4 ~~The media of claim 34, wherein the instructions to order copying of the missing portion of the replica of a selected asset cause the computer to control copying of the missing portion from one or more video servers.~~

37. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 5 ~~The media of claim 34, the instructions further causing the computer to:~~

~~assign priorities to propagate to a plurality of viewing assets;~~

~~rank the viewing assets according to the assigned priorities; and~~

~~select the selected asset in response to the selected asset having more than a preselected minimum rank.~~

38. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 6 ~~The media of claim 37, wherein the instructions to assign cause the computer to:~~

~~determine the propagation priorities based at least in part on global priorities to propagate associated ones of the assets to target video servers.~~

39. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 8 ~~The media of claim 37, wherein the portion of replica of one or more viewing assets consists of replicas of asset elements belonging to one or more ELists.~~

40. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 9~~The media of claim 35, the instructions further causing the computer to:~~
- ~~update retention values of replicas of viewing assets remaining on the target server in response to the copying.~~
41. (Currently Amended) A program storage media storing executable instructions for propagating digital viewing assets onto video servers, the instructions causing a computer to execute the process recited in claim 12 ~~[[{:}]]~~
- ~~assign to each of a plurality of digital viewing assets a priority to propagate the asset onto video servers;~~
- ~~rank the assets based on the assigned priorities; and~~
- ~~order propagation of one of the assets to one or more selected video servers in response to the one of the assets having a preselected minimum ranking.~~
42. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 13~~The media of claim 41, wherein the instructions to assign cause the computer to:~~
- ~~assign a viewing asset to a usage class, the usage class providing a portion of an initial value for priorities to propagate assets assigned to the class.~~
43. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 14~~The media of claim 42, the instructions further causing the computer to:~~
- ~~accumulate usage data on individual assets stored on the video servers; and~~
- ~~update the priorities to propagate the assets based on the usage data.~~

44. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 16~~The media of claim 43, wherein the usage data includes numbers of viewer requests during predetermined periods and differences between numbers of viewer requests during earlier and later predetermined periods.~~

45. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 17~~The media of claim 43, the instructions further causing the computer to:~~

~~update the priority to propagate a particular asset in the usage class based on a difference between the usage level of the usage class and a usage level of the particular asset determined from the accumulated usage data.~~

46. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 18~~The media of claim 42, the instructions further causing the computer to:~~

~~calculate the priority to propagate the one of the assets onto a particular video server from a global priority to propagate the one of the assets and a local priority to propagate a replica of the asset on the one of the selected video servers.~~

47. (Currently Amended) A program storage media storing executable instructions for propagating viewing assets to a video storage, the instructions causing a computer to execute the process of claim 20 ~~[[:]]~~

~~assign propagation priorities to viewing assets;~~

~~construct a table of element deletion lists for a target video storage;~~

~~select a group of element deletion lists from the table, the group having a data size at least as large as a data size of a portion of a replica of another asset not stored on the target storage; and~~

~~order copying of the portion of the replica of the another asset onto the target video storage in response to the propagation priority of the another asset being larger than a retention value of the group.~~

48. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 22~~The media of claim 47, wherein the instructions to select a group cause the computer to construct a table listing sets of element deletion lists with lower retention value than the propagation priority of the another asset.~~

49. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 23~~The media of claim 48, wherein the instructions to select cause the computer to pick one of the lists having a~~

~~data size at least as large as the portion of the replica of the another asset.~~

50. (Currently Amended) A program storage media storing computer executable instructions for executing the process of claim 25~~The media of claim 47, wherein each element deletion list includes a set of replicas of asset elements that are shared by the same assets.~~

51. (Currently Amended) A process for propagating digital viewing assets to video servers, the process comprising:

propagating a plurality of viewing assets to video servers based on propagation priorities~~to propagate~~of for propagating the viewing assets, the priorities providing a ranking of the assets on the basis of predicted economic values associated with propagation of the assets;

accumulating usage data on individual ones of the assets stored on the video servers; and

updating the propagation priorities based on the usage data.

52. (Original) The process of claim 51, further comprising: assigning a viewing asset to a usage class, the usage class providing a portion of an initial value for the priorities to propagate for the assets assigned to the class.
53. (Currently Amended) The process of claim 52, further comprising: calculating the propagation priority to propagate associated with propagating a selected one of the assets onto one of the video servers from
- a global priority to propagate the selected one of the assets, and
- a local priority to propagate a replica of the selected one of the assets onto the one of the video servers.
54. (Original) The process of claim 53, wherein the global priority is based in part on a counter value, the counter value measuring usage of the selected one of the assets.
55. (Original) The process of claim 53, wherein the local priority is based in part on a bandwidth for streaming the selected one of the assets from the one of the video servers to a set of viewers.
56. (Currently Amended) A process for propagating viewing assets, the process comprising:
- copying a missing portion of a replica of a selected viewing asset to storage of a target device in response to determining that a propagation priority to propagate predictive of an economic value of propagating the selected asset to the target device is higher than a retention value predictive of an economic value of retaining of a replica of one or more viewing assets stored on the target device.
57. (Currently Amended) The process of claim 56, wherein copying a missing portion of a replica further comprises: writing the missing portion of the replica of the selected asset onto a portion of the storage medium of the target device on which is that previously stored a portion of the replica of one or more viewing assets.

58. (Original) The process of claim **56**, further comprising: selecting a portion of the replica of one or more viewing assets in response to the replica of one or more viewing assets having a data size at least as large as a data size of the missing portion of the selected asset.
59. (Original) The process of claim **56**, wherein copying the missing portion of the replica of a selected asset further comprises: copying the missing portion from one or more storage devices.
60. (Original) The process of claim **56**, wherein copying the missing portion of the replica of a selected asset further comprises: copying the missing portion from one or more video servers.
61. (Currently Amended) The process of claim **56**, further comprising:

assigning propagation priorities ~~of~~ to a plurality of viewing assets;

ranking the viewing assets according to the assigned propagation priorities; and

selecting ~~the selected~~ an asset in response to the ~~selected~~ asset having a rank ~~in excess of~~ higher than a preselected minimum rank.
62. (Currently Amended) The process of claim **56**, further comprising:

~~assigning propagation priorities to viewing assets, with assigning comprising:~~

constructing a table of element deletion lists for a the target device; and

selecting a group of element deletion lists from the table, the group having a data size at least as large as a data size of a portion of a replica of another asset not stored on the storage of a target device.

63. (Original) The process of claim 56, further comprising selecting the target device to be a target video asset device.

64. (Original) The process of claim 63, wherein assigning comprises:

determining the propagation priorities of the plurality of viewing assets based at least in part on global priorities to propagate associated ones of the assets to target video devices.

65. (Original) The process of claim 63 wherein assigning comprises:

determining local priorities to have replicas of associated assets on particular video devices, the local priorities depending on the states of the particular video devices.

66. (Original) The process of claim 61, wherein the portion of a replica of one or more viewing assets includes replicas of asset elements belonging to one or more element deletion lists.

67. (Original) The process of claim 56, further comprising: updating retention values of replicas of viewing assets remaining on the target device in response to the copying.

68. (Original) The process of claim 56 further comprising selecting the viewing assets to include digital information for at least one of movies, news emissions, and shopping emissions.

69. (Original) The process of claim 58 further comprising selecting viewing assets to include information represented as encoded data files.

70. (Currently Amended) A process for propagating digital viewing assets to target devices, the process comprising:

assigning priorities to propagate assets to target devices, each priority being predictive of an economic value of propagating a particular asset to a particular target device;

ranking the assets based on the assigned priorities; and

propagating one of the assets to one or more selected target devices in response to the one of the assets having a rank higher than a preselected minimum ranking.

71. (Currently Amended) The process of claim **70**, wherein assigning priorities comprises:

assigning a viewing asset to a usage class, the usage class providing a portion of an initial value for priorities to propagate assets assigned to the class.

72. (Original) The process of claim **70**, further comprising:

accumulating usage data on individual assets stored on the target devices; and

updating the priorities to propagate the assets to the target devices based on the usage data.

73. (Original) The process of claim **70**, wherein the viewing assets include at least one of encoded digital viewing assets and encoded digital audio assets.